Clean Versions of Claims

1.   (Presently Amended) A client-side software module comprising:

a user interface for interacting with a user and for identifying a target web page;

a multilevel search control interface configured to accept at least two parameters, one that defines a content based search string and another that identifies a set of linked set of documents that are linked via one or more levels of hyperlinks to the target web page;

a portable executable program code that is responsive to the at least two parameters, and is programmed to perform a multilevel search to search each of the documents specified in the linked set of documents for the content that matches the content based search string, wherein each document in the linked set of documents has an address within a specified domain and can be reached from the target document via a sequence of hyperlinks that are each found in documents in the linked set of documents;

a network based program module that causes at least a portion of the portable set of portable executable program code to be transmitted to a server that is adapted to accept executable code and to execute such code on behalf of one or more remote clients;

wherein at least some executable code that has been transferred from the browser module is permitted to execute at the server, and upon execution, the portion of the executable code that is executed orchestrates a multilevel search to cause the documents in the linked set of documents to be analyzed to determine whether they match the content based search string.

2.   (Presently Amended) The client-side software module of Claim 1, wherein said user interface comprises a window display providing an interactive menu to a user.

3.   (Presently Amended) The client-side software module of Claim 2, wherein said user window is a part of a windows based graphical user interface.

4.   (Presently Amended) The client-side software module of Claim 1, wherein each file found in the search is automatically downloaded by the client-side software module to create a local linked representation of the linked set of documents.

5.   (Presently Amended) The client-side software module of Claim 1, wherein each document found in the search is downloaded and a local sitemap

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representative of the linking structure of the linked set of documents is created by the client-side software module.

6.　　　(Presently Amended) A client-side software module comprising:

a user interface for interacting with a user and for identifying a target web page;

a multilevel search control interface configured to accept at least three parameters to include i) one that defines a content based search string and ii) one that identifies a set of linked set of documents that are linked via one or more levels of hyperlinks to the target web page and iii) one that specifies one or more file types as defined by one or more file name extensions;

a portable executable program code that is responsive to the at least two parameters, and is programmed to perform a multilevel search to search each of the documents specified in the linked set of documents for the content that matches the content based search string, wherein each document in the linked set of documents has an address within a specified domain and can be reached from the target document via a sequence of hyperlinks that are each found in documents in the linked set of documents;

a network based program module that causes at least a portion of the portable set of portable executable program code to be transmitted to a server that is adapted to accept executable code and to execute such code on behalf of one or more remote clients;

wherein at least some executable code that has been transferred from the browser module is permitted to execute at the server, and upon execution, the portion of the executable code that is executed orchestrates a multilevel search to cause the documents in the linked set of documents to be analyzed to determine whether they match the content based search string.

7.　　　(Presently Amended) The plug-in module of Claim 6, wherein said client-side software module is operative to search for all files with an extension of .ppt within the specified domain.

8.　　　(Presently Amended) The plug-in module of Claim 6, wherein said client-side software module is operative to download all files found in the search.

9.　　　(Presently Amended) For use in a client computerized device, a method comprising the steps of:

obtaining application data from an application layer interface;

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passing said information to a user via a user interface;

coupling a multilevel-search interface signal to a user, the multilevel search interface being configured to accept at least two parameters, one that defines a content based search string and another that defines a linked set of documents that each have a hyperlink linkage of a specified range of linkage levels referenced from a target web page, wherein documents in the linked set of documents are characterized in that they can be reached from the target through a sequence of N hyperlink activations, where N is a fixed integer;

coupling a multilevel-search interface signal to a user, the multilevel search interface being configured accept at least two parameters, one that defines a content based search string and another that identifies a set of linked set of documents that are linked via one or more levels of hyperlinks to the target web page and fall within the boundaries of a specified domain;

transmitting a set of executable program code to a remote server for execution on the remote network server, wherein said set of transmitted executable program code orchestrates the following acts:

    (i)   accessing a first markup language document and scanning said document to determine a hyperlink contained therein;

    (ii)   determining whether the hyperlink points to a web object whose URL address falls within the boundaries of the specified domain;

    (iii)   if the hyperlink was found to points to a web object whose URL address falls within the boundaries of the specified domain, activating said hyperlink found in said step of accessing;

    (iv)   retrieving at least a portion of a second markup document associated with said hyperlink; and

    (v)   comparing the contents of said at least a portion of said second markup document to at least a portion of said content based search string.

10.   (cancelled)

11.   (cancelled)

12.   (Previously presented) The method of Claim 9, wherein said content based search string includes a Boolean keyword expression.

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13.   (Previously presented) The method of Claim 9, wherein said client browser is hosted within a wireless mobile device and said parameter set includes information derived from an electronic positioning system.

14.   (Previously presented) The method of Claim 9, whereby said transmitted executable code further orchestrates the following act:

evaluating the results of the comparison and when said step of comparing reveals a match, coupling information related thereto to the user, and when said step of comparing does not yield a match, checking to see if the search is complete, and if it is not, accessing a next hyperlink and repeating the steps of activating, retrieving, and comparing, and evaluating.

15.   (Previously presented) The method of Claim 14, wherein said step of evaluating further comprises the steps of:

when said information has been coupled to said user, awaiting a find-next signal and when said find-next signal is received, checking to see if the search is complete and if it is not, accessing a next hyperlink and repeating the steps of activating, retrieving and comparing, and evaluating.

16.   (Previously presented) The method of Claim 9, wherein said parameters include a Boolean keyword expression, an indication of the number of levels to search and an indication to continue the search on a designated-next-linked page.

17.   (Previously presented) The method of Claim 9, wherein said hyperlink points to a metadata description of a web resource and said step of accessing involves accessing a file containing metadata relating to said resource.

18.   (Previously presented) The method of Claim 9, wherein said second markup document comprises a metadata description, said metadata description being described using a resource description framework (RDF) based language.

19.   (Presently Amended) In an intelligent client, a method of seeking information in an information network, the method comprising the steps of:

accessing a web page via said network connection using a client-server transaction;

presenting said web page to a user;

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receiving a set of one or more multilevel search parameters to define a multilevel browsing operation over a set of documents whose web addresses fall within a specified domain;

receiving a content based search parameter;

specifying in said intelligent client a set of transportable executable program code, and transmitting the transportable executable program code to a remote server that is adapted to execute the transportable executable program code, said transportable executable program code operative to orchestrate the implementation of said multilevel browsing operation from a remote network node;

wherein the transportable executable program code causes said multilevel browser function to be performed at least partially in said remote server, and wherein the multilevel browser function causes a set of specified links who are within N hyperlink hops of the web page to be searched for the content based search parameter.

20.   (Previously Presented) The method of Claim 19, wherein transportable executable program code is represented as Java bytecodes, executes at least partially in an agent sandbox, and uses a remote method invocation based distributed object protocol to communicate with said intelligent client.

21.   (New) A smart browser module comprising:

an application layer interface coupled to a protocol stack, said application layer interface operative to receive at least one data packet comprising at least a portion of a target web page;

a user interface for interacting with a user;

a multilevel search control interface configured to accept at least two parameters, one that defines a content based search string and another that defines a linked set of documents that each have a hyperlink linkage of a specified range of linkage levels referenced from the target web page;

a set of portable executable program code that is responsive to the at least two parameters, and is programmed to perform a multilevel search to search each of the documents specified in the linked set of documents for the content that matches the content based search string, wherein documents in the linked set of documents are characterized in that they can be reached from the target through a sequence of N hyperlink activations, where N is a fixed integer;

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a network based program module that causes at least a portion of the portable set of portable executable program code to be transmitted to a server that is adapted to accept executable code and to execute such code on behalf of one or more remote clients;

wherein upon being received at the server, at least some executable code that has been transferred from the browser module is permitted to execute at the server, and upon execution the portion of the executable code that is executed orchestrates a multilevel search to cause the documents in the linked set of documents to be analyzed to determine whether they match the content based search string.

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